



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,107	12/13/2001	John F. McEntee	10004452-1	6455

7590 03/05/2002

Gordon Stewart  
Agilent Technologies  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

NGHIEM, MICHAEL P

ART UNIT PAPER NUMBER

2861

DATE MAILED: 03/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/017,107

Applicant(s)

MCENTEE ET AL.

Examiner

Michael P Nghiem

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_                      6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - US Patent Application Serial No. (page 9, line 4) is missing.Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "stopper 12" (page 6, lines 20). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2861

Claims 1-9 and 14-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following limitations lack antecedent basis:

- claim 1, "said nozzle".
- claim 6, "said fluid reservoir".

Claim 2, is the fluid source different from claim 1?

Claim 4, is the pressure compensation source different from claim 1?

Claims 14, 18, is the fluid supply (claim 17) different from the fluid supply vessel (claim 18)?

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 2861

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-6, 10, 13-19, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoen et al. (US 6,325,354).

Hoen et al. discloses all the claimed features of the invention including:

- a printing system and method of maintaining a desired pressure of a print medium

(Figs. 1, 2) comprising:

- a pulse jet printhead (printhead of 15), a manometer (29, 31, 33) and lines (ink paths, Figs. 1, 2) configured to connect said printhead and manometer in parallel to a fluid source (Figs. 1, 2) to be connected to a pressure compensation source (13), wherein said system is adapted to vary an output of said pressure compensation source to maintain a fluid level within said manometer in a predetermined range to maintain fluid pressure at said nozzle within a corresponding range (column 4, lines 12-30);

- a fluid source (13);

- a sensor (29) to generate a signal in response to the fluid level within said manometer, and a control unit (column 4, lines 19-20) which generates a control signal for said pressure compensation source in response to said sensor signal (column 4, lines 20-24);

Art Unit: 2861

- a pressure compensation source (13) ;
- a first valve (21) at an exit of said manometer.
- a second valve (21) at an entrance to said fluid reservoir (15).
- a print medium (ink).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, 11, 12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoen et al. in view of Barinaga et al. (US 5,721,578).

Hoen et al. does not disclose:

- a supply vessel to feed a print medium to said fluid source;
- said pressure applied is negative pressure;
- said pressure applied is positive pressure.

Art Unit: 2861

Nevertheless, Barinaga et al. discloses a supply vessel (202), a pressure applied is negative pressure or positive pressure (characteristic of bellows 202), for the purpose of filling ink to a fluid source (20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hoen et al. with a supply vessel as disclosed by Barinaga et al. for the purpose of filling ink to a fluid source.

Claims 9 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoen et al. in view of Barinaga et al. as applied to claims 7, 8, 11, 12, and 20 above, and further in view of Schleifer et al. (US 6,242,266).

Hoen et al. as modified does not disclose that said print medium a biopolymer or precursor thereof.

Nevertheless, Schleifer et al. discloses that a print medium comprises a biopolymer (Abstract, lines 1-3) for the purpose of producing an array of biopolymers on a substrate.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hoen et al. as modified with a print medium

Art Unit: 2861

comprising a biopolymer as disclosed by Schleifer et al. for the purpose of producing an array of biopolymers on a substrate.

Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoen et al. in view of Barinaga et al. as applied to claims 7, 8, 11, 12, and 20 above, and further in view of Schleifer et al. as applied to claims 9 and 23-25 and further in view of Admitted Prior Art of pages 11-14 (APA).

Hoen et al. as modified does not disclose:

- a method of detecting the presence of an analyte in a sample, said method comprising:

- (a) contacting (i) a biopolymeric array having a polymeric ligand that specifically binds to said analyte, with (ii) a sample suspected of comprising said analyte under conditions sufficient for binding of said analyte to a biopolymeric ligand on said array to occur; and

- detecting the presence of binding complexes on the surface of the said array to detect the presence of said analyte in said sample;

- said method further comprises a data transmission step;

- the data is communicated to a remote location;
    - receiving data representing a result of a reading.

Nevertheless, APA discloses:



Art Unit: 2861

(a) contacting (i) a biopolymeric array having a polymeric ligand that specifically binds to said analyte, with (ii) a sample suspected of comprising said analyte under conditions sufficient for binding of said analyte to a biopolymeric ligand on said array to occur (page 11) for the purpose of providing information regarding genetic profile; and

detecting the presence of binding complexes on the surface of the said array to detect the presence of said analyte in said sample (page 11) for the purpose of gene discovery assays and differential gene expression analysis assays;

said method further comprises a data transmission step to a remote location (page 12) for the purpose of processing raw data;

- receiving data representing a result of a reading (pages 13-14) for the purpose of further processing or use of data.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hoen et al. as modified with the method as disclosed by APA for the purpose of detecting the presence of analyte.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.

  
Michael Nghiem

February 28, 2002